

**A HEAD OF LINE BLOCKAGE AVOIDANCE SYSTEM AND
METHOD OF OPERATION THEREOF**

ABSTRACT OF THE DISCLOSURE

A head of line blockage avoidance system for use with network systems that employ packets having an associated priority and a method of operation thereof. In one embodiment, the head of line blockage avoidance system includes: (1) m inputs, m numbering at least two, configured to receive the packets, (2) n packet first-in-first-out buffers (FIFOs), n numbering at least three, each of the packet FIFOs configured to receive at least one of the packets from the m inputs, (3) a priority summarizer configured to generate a priority summary of the packets within the m inputs and the n packet FIFOs, and (4) a scheduler configured to cause one of the n packet FIFOs to be queued for processing based on the priority summary.